

<110> Ajinomoto Co., Inc.

<130> B-586AYOP964

<151> 1999-04-02

<160> 10

<210> 1

<211> 126

<212> PRT

<213> Crotalus horridus horridus

<400> 1

Asp	Leu	Glu	Cys	Pro	Ser	Gly	Trp	Ser	Ser	Tyr	Asp	Arg	Tyr	Cys	Tyr
1				5					10					15	
Lys	Pro	Phe	Lys	Gln	Glu	Met	Thr	Trp	Ala	Asp	Ala	Glu	Arg	Phe	Cys
			20					25					30		
Ser	Glu	Gln	Ala	Lys	Gly	Gly	His	Leu	Leu	Ser	Val	Glu	Thr	Ala	Leu
		35				40						45			
Glu	Ala	Ser	Phe	Val	Asp	Asn	Val	Leu	Tyr	Ala	Asn	Lys	Glu	Tyr	Leu
	50					55					60				
Thr	Arg	Tyr	Ile	Trp	Ile	Gly	Leu	Arg	Val	Gln	Asn	Lys	Gly	Gln	Pro
65					70					75					80
Cys	Ser	Ser	Ile	Ser	Tyr	Glu	Asn	Leu	Val	Asp	Pro	Phe	Glu	Cys	Phe
			85						90					95	
Met	Val	Ser	Arg	Asp	Thr	Arg	Leu	Arg	Glu	Trp	Phe	Lys	Val	Asp	Cys
			100					105					110		
Glu	Gln	Gln	His	Ser	Phe	Ile	Cys	Lys	Phe	Thr	Arg	Pro	Arg		
		115					120					125			

<210> 2

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<222> (96)..(512)

ctgagcagac ttgctacctg tggaggccga ggaacagttc tctctgcagg gaaggaaaga 60
acgcc atg ggg cga ttc atc ttc gtg agc ttc aac ttg ctg gtc gtg ttc 110

				20					25					30					
tct	tcc	tat	gat	egg	tat	tgc	tac	aag	ccc	ttc	aaa	caa	gag	atg	acc				206
Ser	Ser	Tyr	Asp	Arg	Tyr	Cys	Tyr	Lys	Pro	Phe	Lys	Gln	Glu	Met	Thr				

ctc ctc tct gtc gaa acc gcc cta gaa gca tcc ttt gtg gac aat gtg 302
Leu Leu Ser Val Glu Thr Ala Leu Glu Ala Ser Phe Val Asp Asn Val
65 70 75

ctc tat gcg aac aaa gag tac ctc aca cgt tat atc tgg att gga ctg 350
Leu Tyr Ala Asn Lys Glu Tyr Leu Thr Arg Tyr Ile Trp Ile Gly Leu
80 85 90 95

agg gtt caa aac aaa gga cag cca tgc tcc agc atc agt tat gag aac 398
Arg Val Gln Asn Lys Gly Gln Pro Cys Ser Ser Ile Ser Tyr Glu Asn
100 105 110

ctg gtt gac cca ttt gaa tgt ttt atg gtg agc aga gac aca agg ctt 446
Leu Val Asp Pro Phe Glu Cys Phe Met Val Ser Arg Asp Thr Arg Leu
115 120 125

cgt gag tgg ttt aaa gtt gac tgt gaa caa caa cat tct ttc ata tgc 494
Arg Glu Trp Phe Lys Val Asp Cys Glu Gln Gln His Ser Phe Ile Cys
130 135 140

aag ttc acg cga cca cgt taagatccgg ctgtgtgaag tctggagaag 542
Lys Phe Thr Arg Pro Arg
145

caaggaagcc cccacacct cccaccccc caccttcgc aatctctgct ctccccctt 602
tgctcagtg atgtctctg tagccggatc tgggttttct gctccagatg ggtcagaaga 662
tccaataaat tctgcctacc caaaaaaaaa 690

<212> PRT

<213> Crotalus horridus horridus

<400> 6

Met	Gly	Arg	Phe	Ile	Phe	Val	Ser	Phe	Asn	Leu	Leu	Val	Val	Phe	Leu
1				5					10					15	
Ser	Leu	Ser	Gly	Thr	Leu	Ala	Asp	Leu	Glu	Cys	Pro	Ser	Gly	Trp	Ser
			20					25					30		
Ser	Tyr	Asp	Arg	Tyr	Cys	Tyr	Lys	Pro	Phe	Lys	Gln	Glu	Met	Thr	Trp
		35					40					45			
Ala	Asp	Ala	Glu	Arg	Phe	Cys	Ser	Glu	Gln	Ala	Lys	Gly	Gly	His	Leu
	50					55					60				
Leu	Ser	Val	Glu	Thr	Ala	Leu	Glu	Ala	Ser	Phe	Val	Asp	Asn	Val	Leu
65					70				75					80	
Tyr	Ala	Asn	Lys	Glu	Tyr	Leu	Thr	Arg	Tyr	Ile	Trp	Ile	Gly	Leu	Arg
			85					90					95		
Val	Gln	Asn	Lys	Gly	Gln	Pro	Cys	Ser	Ser	Ile	Ser	Tyr	Glu	Asn	Leu
		100					105					110			
Val	Asp	Pro	Phe	Glu	Cys	Phe	Met	Val	Ser	Arg	Asp	Thr	Arg	Leu	Arg
	115					120					125				
Glu	Trp	Phe	Lys	Val	Asp	Cys	Glu	Gln	Gln	His	Ser	Phe	Ile	Cys	Lys
	130					135					140				
Phe	Thr	Arg	Pro	Arg											
145															

<210> 7

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer

<400> 7

attgatcca tggattgga atgtccctcc

30

<210> 8

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer

30

<213> Artificial Sequence

<223> Description of Artificial Sequence: primer

26

<213> Artificial Sequence

<223> Description of Artificial Sequence: primer

26

SEQUENCE LISTING

<110> FUKUCHI, NAOYUKI
KAGEYAMA, SHUNSUKE
KITO, MORIKAZU
KAYAHARA, TAKASHI
YAMAMOTO, HIROSHI

<120> Method for Producing Subunit Peptide Originating from Oligomeric Protein

<130> 214595US0PCT

<140> US 09/926,256

<141> 2001-10-02

<150> JP 11-96073

<151> 1999-04-02

<160> 10

<170> PatentIn version 3.1

<210> 1

<211> 126

<212> PRT

<213> Crotalus horridus horridus

<400> 1

Asp	Leu	Glu	Cys	Pro	Ser	Gly	Trp	Ser	Ser	Tyr	Asp	Arg	Tyr	Cys	Tyr
1				5				10						15	

Lys	Pro	Phe	Lys	Gln	Glu	Met	Thr	Trp	Ala	Asp	Ala	Gln	Arg	Phe	Cys
			20					25					30		

Ser	Glu	Gln	Ala	Lys	Gly	Gly	His	Leu	Leu	Ser	Val	Glu	Thr	Ala	Leu
			35				40					45			

Glu	Ala	Ser	Phe	Val	Asp	Asn	Val	Leu	Tyr	Ala	Asn	Lys	Glu	Tyr	Leu
	50					55					60				

Thr	Arg	Tyr	Ile	Trp	Ile	Gly	Leu	Arg	Val	Gln	Asn	Lys	Gly	Gln	Pro
65					70					75					80

Cys	Ser	Ser	Ile	Ser	Tyr	Glu	Asn	Leu	Val	Asp	Pro	Phe	Glu	Cys	Phe
				85					90					95	

Met	Val	Ser	Arg	Asp	Thr	Arg	Leu	Arg	Glu	Trp	Phe	Lys	Val	Asp	Cys
							100			105				110	

Glu Gln Gln His Ser Phe Ile Cys Lys Phe Thr Arg Pro Arg
 115 120 125

<210> 2
 <211> 17
 <212> DNA
 <213> ARTIFICIAL SEQUENCE

<220>
 <223> SYNTHETIC DNA

<220>
 <221> misc_feature
 <222> (12)..(12)
 <223> n=a, g, c or t

<400> 2
 cargaratga cntgggc 17

<210> 3
 <211> 17
 <212> DNA
 <213> ARTIFICIAL SEQUENCE

<220>
 <223> SYNTHETIC DNA

<220>
 <221> misc_feature
 <222> (3)..(3)
 <223> n=a, g, c or t

<400> 3
 tcnacytttra accaytc 17

<210> 4
 <211> 272
 <212> DNA
 <213> Crotalus horridus horridus

<400> 4
 caggagatga cttgggccga tgcagagagg ttctgctcgg agcagggcgaa gggcgggcat 60
 ctccctctctg tcgaaaccgc cctagaagca tcctttgtgg acaatgtgct ctatgcgaac 120
 aaagagtacc tcacacgtta tatctggatt ggactgaggg ttcaaaacaa aggacagcca 180
 tgctccagca tcagttatga gaacctgggt gaccatttg aatgttttat ggtgagcaga 240
 gacacaaggc ttcgtgagtg gttcaaagtc ga 272

<210> 5
 <211> 690
 <212> DNA
 <213> Crotalus horridus horridus

<220>
 <221> CDS
 <222> (66) .. (512)
 <223>

<400> 5
 ctgagcagac ttgctacctg tggaggccga ggaacagttc tctctgcagg gaaggaaaga 60
 acgcc atg ggg cga ttc atc ttc gtg agc ttc aac ttg ctg gtc gtg ttc 110
 Met Gly Arg Phe Ile Phe Val Ser Phe Asn Leu Leu Val Val Phe
 1 5 10 15
 ctc tcc cta agt gga act cta gct gat ttg gaa tgt ccc tcc ggt tgg 158
 Leu Ser Leu Ser Gly Thr Leu Ala Asp Leu Glu Cys Pro Ser Gly Trp
 20 25 30
 tct tcc tat gat cgg tat tgc tac aag ccc ttc aaa caa gag atg acc 206
 Ser Ser Tyr Asp Arg Tyr Cys Tyr Lys Pro Phe Lys Gln Glu Met Thr
 35 40 45
 tgg gcc gat gca gag agg ttc tgc tcg gag cag gcg aag ggc ggg cat 254
 Trp Ala Asp Ala Glu Arg Phe Cys Ser Glu Gln Ala Lys Gly Gly His
 50 55 60
 ctc ctc tct gtc gaa acc gcc cta gaa gca tcc ttt gtg gac aat gtg 302
 Leu Leu Ser Val Glu Thr Ala Leu Glu Ala Ser Phe Val Asp Asn Val
 65 70 75
 ctc tat gcg aac aaa gag tac ctc aca cgt tat atc tgg att gga ctg 350
 Leu Tyr Ala Asn Lys Glu Tyr Leu Thr Arg Tyr Ile Trp Ile Gly Leu
 80 85 90 95
 agg gtt caa aac aaa gga cag cca tgc tcc agc atc agt tat gag aac 398
 Arg Val Gln Asn Lys Gly Gln Pro Cys Ser Ser Ile Ser Tyr Glu Asn
 100 105 110
 ctg gtt gac cca ttt gaa tgt ttt atg gtg agc aga gac aca agg ctt 446
 Leu Val Asp Pro Phe Glu Cys Phe Met Val Ser Arg Asp Thr Arg Leu
 115 120 125
 cgt gag tgg ttt aaa gtt gac tgt gaa caa caa cat tct ttc ata tgc 494
 Arg Glu Trp Phe Lys Val Asp Cys Glu Gln Gln His Ser Phe Ile Cys
 130 135 140
 aag ttc acg cga cca cgt taagatccgg ctgtgtgaag tctggagaag 542
 Lys Phe Thr Arg Pro Arg
 145
 caaggaagcc cccacacctt cccaccccc caccctccgc aatctctgct cttccccctt 602
 tgctcagtgg atgctctctg tagccggatc tgggttttct gctccagatg ggtcagaaga 662

tccaataaat tctgcctacc caaaaaaa

690

<210> 6
<211> 149
<212> PRT
<213> Crotalus horridus horridus

<400> 6

Met Gly Arg Phe Ile Phe Val Ser Phe Asn Leu Leu Val Val Phe Leu
1 5 10 15

Ser Leu Ser Gly Thr Leu Ala Asp Leu Glu Cys Pro Ser Gly Trp Ser
20 25 30

Ser Tyr Asp Arg Tyr Cys Tyr Lys Pro Phe Lys Gln Glu Met Thr Trp
35 40 45

Ala Asp Ala Glu Arg Phe Cys Ser Glu Gln Ala Lys Gly Gly His Leu
50 55 60

Leu Ser Val Glu Thr Ala Leu Glu Ala Ser Phe Val Asp Asn Val Leu
65 70 75 80

Tyr Ala Asn Lys Glu Tyr Leu Thr Arg Tyr Ile Trp Ile Gly Leu Arg
85 90 95

Val Gln Asn Lys Gly Gln Pro Cys Ser Ser Ile Ser Tyr Glu Asn Leu
100 105 110

Val Asp Pro Phe Glu Cys Phe Met Val Ser Arg Asp Thr Arg Leu Arg
115 120 125

Glu Trp Phe Lys Val Asp Cys Glu Gln Gln His Ser Phe Ile Cys Lys
130 135 140

Phe Thr Arg Pro Arg
145

<210> 7
<211> 30
<212> DNA
<213> ARTIFICIAL SEQUENCE

<220>

<223> SYNTHETIC DNA

<400> 7

attggatcca tggatttgga atgtccctcc

30

<210> 8

<211> 30

<212> DNA

<213> ARTIFICIAL SEQUENCE

<220>

<223> SYNTHETIC DNA

<400> 8

aataagctta acgtggtcgc gtgaacttgc

30

<210> 9

<211> 26

<212> DNA

<213> ARTIFICIAL SEQUENCE

<220>

<223> SYNTHETIC DNA

<400> 9

gatgctggag gctggctgtc ctttgt

26

<210> 10

<211> 26

<212> DNA

<213> ARTIFICIAL SEQUENCE

<220>

<223> SYNTHETIC DNA

<400> 10

ggacagccag cctccagcat cagtta

26